# JAVA INTERNSHIP

# TASK-2

# HOSPITAL MANAGEMENT SYSTEM

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## APPOINTMENTSERVLET.JAVA package

hms;

import javax.servlet.*; import

javax.servlet.http.*; import

java.io.IOException; import

java.sql.*;

```java
public class AppointmentServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
        throws ServletException, IOException {
    String patientId =
request.getParameter("patientId");
    String doctor = request.getParameter("doctor");
String date = request.getParameter("date");
    String time = request.getParameter("time");
     try
{
        Class.forName("com.mysql.cj.jdbc.Driver");
Connection conn =
```

```java
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");

        PreparedStatement ps =
conn.prepareStatement("INSERT INTO
appointments(patient_id, doctor, date, time) VALUES
(?, ?, ?, ?)");

ps.setString(1, patientId);

ps.setString(2, doctor);

ps.setString(3, date);

ps.setString(4, time);

ps.executeUpdate();

conn.close();        } catch

(Exception e) {

        e.printStackTrace();

    }

    response.sendRedirect("appointment.html");

  }

}
```

## APPOINTMENT.HTML

```html
<!DOCTYPE html>
<html>
<head><title>Schedule Appointment</title>
<link rel="stylesheet" type="text/css" href="style.css">
</head>

<body>
<nav>
<a href="registration.html"><button>Registration</button></a>
<a href="appointment.html"><button>Appointment</button></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a href="inventory.html"><button>Inventory</button></a>
<a href="staff.html"><button>Staff</button></a>
```

```html
</nav>

<h2>Appointment</h2>
<form action="scheduleAppointment" method="post">
    Patient ID: <input type="text"
name="patientId"><br>
    Doctor Name: <input type="text"
name="doctor"><br>
    Date: <input type="date" name="date"><br>
    Time: <input type="time" name="time"><br>
<input type="submit" value="Schedule">
</form>
</body>
</html>
```

**BILLINGSERVLET.JAVA** package
hms;

import javax.servlet.*; import
javax.servlet.http.*; import

```java
java.io.IOException; import
java.sql.*;


public class BillingServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
        throws ServletException, IOException {
    String patientId =
request.getParameter("patientId");
    String amount = request.getParameter("amount");
    String service = request.getParameter("service");
     try
{
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
        PreparedStatement ps =
conn.prepareStatement("INSERT INTO
billing(patient_id, service, amount) VALUES (?, ?, ?)");
ps.setString(1, patientId);          ps.setString(2,
```

```
service);          ps.setString(3, amount);

ps.executeUpdate();

        conn.close();        }

catch (Exception e) {

        e.printStackTrace();

    }

    response.sendRedirect("billing.html");

  }

}
```

## BILLING.HTML

```
<!DOCTYPE html>

<html>

<head><title>Billing</title>

<link rel="stylesheet" type="text/css" href="style.css">

</head>

<body>

<nav>

<a
```

```
href="registration.html"><button>Registration</button
></a>
<a
href="appointment.html"><button>Appointment</butt
on></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a
href="inventory.html"><button>Inventory</button></a
>
<a href="staff.html"><button>Staff</button></a>
</nav>


<h2>Generate Bill</h2>
<form action="billing" method="post">
    Patient ID: <input type="text"
name="patientId"><br>
    Service: <input type="text" name="service"><br>
    Amount: <input type="text" name="amount"><br>
<input type="submit" value="Submit">
</form>
```

```html
</body>
</html>
```

## EHRSERVLET.JAVA package hms;

```java
import javax.servlet.*; import
javax.servlet.http.*; import
java.io.IOException; import
java.sql.*;

public class EHRServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
        throws ServletException, IOException {

    String patientId =
request.getParameter("patientId");

    String diagnosis =
request.getParameter("diagnosis");

    String treatment =
request.getParameter("treatment");
```

```java
        try
{
        Class.forName("com.mysql.cj.jdbc.Driver");
Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
        PreparedStatement ps =
conn.prepareStatement("INSERT INTO ehr(patient_id,
diagnosis, treatment) VALUES (?, ?, ?)");
ps.setString(1, patientId);        ps.setString(2,
diagnosis);        ps.setString(3, treatment);
ps.executeUpdate();        conn.close();        } catch
(Exception e) {
        e.printStackTrace();
    }
    response.sendRedirect("ehr.html");
  }
}
```

**EHR.HTML**

```html
<!DOCTYPE html>
```

```html
<html>
<head><title>Electronic Health Record</title>
<link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
<a href="registration.html"><button>Registration</button></a>
<a href="appointment.html"><button>Appointment</button></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a href="inventory.html"><button>Inventory</button></a>
<a href="staff.html"><button>Staff</button></a>
</nav>

<h2>Enter Health Record</h2>
```

```html
<form action="ehr" method="post">
    Patient ID: <input type="text" name="patientId"><br>
    Diagnosis: <input type="text" name="diagnosis"><br>
    Treatment: <input type="text" name="treatment"><br>
<input type="submit" value="Save">
</form>
</body>
</html>
```

**INVENTORYSERVLET.JAVA** package hms;

```java
import javax.servlet.*; import
javax.servlet.http.*; import
java.io.IOException; import
java.sql.*;
```

```java
public class InventoryServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)

        throws ServletException, IOException {

    String itemName =
request.getParameter("itemName");

    String quantity = request.getParameter("quantity");

     try

{

        Class.forName("com.mysql.cj.jdbc.Driver");

        Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");

        PreparedStatement ps =
conn.prepareStatement("INSERT INTO
inventory(item_name, quantity) VALUES (?, ?)");
ps.setString(1, itemName);
ps.setString(2, quantity);
ps.executeUpdate();        conn.close();      }
catch (Exception e) {

        e.printStackTrace();

    }
```

```
        response.sendRedirect("inventory.html");
    }
}
```

## INVENTORY.HTML

```
<!DOCTYPE html>
<html>
<head><title>Inventory</title>
<link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
<a href="registration.html"><button>Registration</button></a>
<a href="appointment.html"><button>Appointment</button></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a> <a
```

```html
href="inventory.html"><button>Inventory</button></a
>

<a href="staff.html"><button>Staff</button></a>

</nav>


<h2>Inventory</h2>

<form action="inventory" method="post">

    Item Name: <input type="text"
name="itemName"><br>

    Quantity: <input type="text" name="quantity"><br>

<input type="submit" value="Update">

</form>

</body>

</html>
```

## PATIENTREGISTRATIONSERVLET.JAVA

```java
package hms;


import javax.servlet.*; import

javax.servlet.http.*; import
```

```java
java.io.IOException; import
java.sql.*;

public class PatientRegistrationServlet extends
HttpServlet {
    protected void doPost(HttpServletRequest request,
HttpServletResponse response)
        throws ServletException, IOException {
    String name = request.getParameter("name");
    String dob = request.getParameter("dob");
    String gender = request.getParameter("gender");
    String contact = request.getParameter("contact");
     try
{
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
        PreparedStatement ps =
conn.prepareStatement("INSERT INTO patients(name,
dob, gender, contact) VALUES (?, ?, ?, ?)");
ps.setString(1, name);
```

```java
        ps.setString(2,      dob);

ps.setString(3,         gender);

ps.setString(4,         contact);

ps.executeUpdate();

conn.close();              } catch

(Exception e) {

    e.printStackTrace();

  }

  response.sendRedirect("registration.html");

 }

}
```

**REGISTRATION.HTML**

```html
<!DOCTYPE html>

<html>

<head><title>Patient Registration</title>

<link rel="stylesheet" type="text/css" href="style.css">

</head>

<body>

<nav>
```

```html
<a href="registration.html"><button>Registration</button></a>
<a href="appointment.html"><button>Appointment</button></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a href="inventory.html"><button>Inventory</button></a>
<a href="staff.html"><button>Staff</button></a>
</nav>


<h2>Register Patient</h2>
<form action="registerPatient" method="post">
    Name: <input type="text" name="name"><br>
    DOB: <input type="date" name="dob"><br>
    Gender: <select name="gender">
<option>Male</option><option>Female</option><option>Other</option>
</select><br>
```

Contact: <input type="text" name="contact"><br>

<input type="submit" value="Register">

</form>

</body>

</html>


**STAFFMANAGMENTSERVLET.JAVA**

package hms;


import javax.servlet.*; import

javax.servlet.http.*; import

java.io.IOException; import

java.sql.*;


public class StaffManagementServlet extends
HttpServlet {

   protected void doPost(HttpServletRequest request,
HttpServletResponse response)

      throws ServletException, IOException {

    String name = request.getParameter("name");

```java
String role = request.getParameter("role");

String department = request.getParameter("department");

try
{

    Class.forName("com.mysql.cj.jdbc.Driver");

    Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/hms", "root", "root");

    PreparedStatement ps = conn.prepareStatement("INSERT INTO staff(name, role, department) VALUES (?, ?, ?)");          ps.setString(1, name);          ps.setString(2, role);

ps.setString(3, department);

ps.executeUpdate();          conn.close();          } catch (Exception e) {

        e.printStackTrace();

    }

    response.sendRedirect("staff.html");

}
}
```

## STAFF.HTML

```html
<!DOCTYPE html>
<html>
<head><title>Staff Management</title>
<link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
<a href="registration.html"><button>Registration</button></a>
<a href="appointment.html"><button>Appointment</button></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a href="inventory.html"><button>Inventory</button></a>
<a href="staff.html"><button>Staff</button></a>
</nav>
```

```html
<h2>Add Staff</h2>
<form action="staff" method="post">
    Name: <input type="text" name="name"><br>
    Role: <input type="text" name="role"><br>
    Department: <input type="text" name="department"><br>
<input type="submit" value="Add">
</form>
</body>
</html>
```

**STYLE.CSS** /*

General Layout */

```css
body {
    font-family: Arial,sans-serif;
background-color: #f4f8fb;
margin: 0;    padding: 0;

}
```

```css
/* Page Heading */ h2 {
background-color: #0066cc;
color: white;    padding:
15px;    margin: 0;    text-
align: center;
}

/* Form Container */ form {
background-color: white;    max-
width: 600px;    margin: 30pxauto;
padding: 20px;    border:
1pxsolid#ddd;    border-radius: 8px;
box-shadow: 0010pxrgba(0,0,0,0.1); }

/* Input Fields */
input[type="text"],
input[type="email"],
input[type="number"],
input[type="date"],
textarea, select {
```

```css
  width: 100%;

  padding: 10px;

  margin: 10px020px0;

  border: 1pxsolid#ccc;

  border-radius: 4px;

}


/* Submit Button */ button,

input[type="submit"] {

background-color: #007bff;

color: white;    padding:

10px16px;    border: none;

border-radius: 4px;    cursor:

pointer;    margin-right:

10px;

}


button:hover, input[type="submit"]:hover

{    background-color: #0056b3;

}
```

```css
/* Navigation Bar */ nav {
background-color: #003366;
padding: 10px;    text-align:
center;
}


nava {    text-
decoration: none;
margin: 010px;
}


navbutton {    background-
color: #005aab;    color:
white;    padding: 8px12px;
border: none;    border-
radius: 5px;
}
```

```css
navbutton:hover {    background-color: #003f7d;
}


/* Table Style (optional for EHR or Inventory view) */
table {    border-collapse: collapse;
   width: 100%;    margin-top: 20px;
}


tableth,tabletd {    text-align: left;    padding: 12px;
border-bottom: 1pxsolid#ccc;
}
tableth {    background-color: #0066cc;    color: white;
}
```

## WEB.XML

```xml
<?xml version="1.0" encoding="UTF-8"?>
```

```xml
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"

xmlns:xsi="http://www.w3.org/2001/XMLSchemainstance"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee

http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd"
version="3.1">

<!-- Patient Registration Servlet -->
<servlet>
<servlet-name>PatientRegistrationServlet</servletname>
<servlet-class>hms.PatientRegistrationServlet</servletclass>
</servlet>
<servlet-mapping>
<servlet-name>PatientRegistrationServlet</servletname>
<url-pattern>/registerPatient</url-pattern>
</servlet-mapping>
```

```xml
<!-- Appointment Servlet -->
<servlet> <servlet-name>AppointmentServlet</servlet-name>
<servlet-class>hms.AppointmentServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>AppointmentServlet</servlet-name>
<url-pattern>/scheduleAppointment</url-pattern>
</servlet-mapping>

<!-- EHR Servlet -->
<servlet>
<servlet-name>EHRServlet</servlet-name>
<servlet-class>hms.EHRServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>EHRServlet</servlet-name>
<url-pattern>/ehr</url-pattern>
</servlet-mapping>
```

```xml
<!-- Billing Servlet -->
<servlet>
<servlet-name>BillingServlet</servlet-name>
<servlet-class>hms.BillingServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>BillingServlet</servlet-name>
<url-pattern>/billing</url-pattern>
</servlet-mapping>

<!-- Inventory Servlet -->
<servlet>
<servlet-name>InventoryServlet</servlet-name>
<servlet-class>hms.InventoryServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>InventoryServlet</servlet-name>
<url-pattern>/inventory</url-pattern>
</servlet-mapping>
```

```xml
<!-- Staff Management Servlet -->
<servlet> <servlet-name>StaffManagementServlet</servletname>
<servlet-class>hms.StaffManagementServlet</servletclass>
</servlet>
<servlet-mapping>
<servlet-name>StaffManagementServlet</servletname>
<url-pattern>/staff</url-pattern>
</servlet-mapping>

<!-- Welcome File -->
<welcome-file-list>
<welcome-file>registration.html</welcome-file>
</welcome-file-list>

</web-app>
```

## CODE FOR DATABASE

```sql
CREATE DATABASE IF NOT EXISTS hms;
USE hms;


-- Patients Table
CREATE TABLE IF NOT EXISTS patients (
patient_id INT AUTO_INCREMENT PRIMARY KEY,
name VARCHAR(100) NOT NULL,    dob DATE,
gender VARCHAR(10),    contact VARCHAR(15),
   registration_date TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);


-- Appointments Table
CREATE TABLE IF NOT EXISTS appointments (
   appointment_id INT AUTO_INCREMENT PRIMARY KEY,                patient_id    INT,
doctor_name    VARCHAR(100),
appointment_date          DATE,
```

```sql
    appointment_time        TIME,
    FOREIGN    KEY    (patient_id)
    REFERENCES
    patients(patient_id)
);


-- EHR (Electronic Health Records) CREATE
TABLE IF NOT EXISTS ehr (    ehr_id INT
AUTO_INCREMENT PRIMARY KEY,
    patient_id    INT,
    diagnosis      TEXT,
    treatment TEXT,
    record_date TIMESTAMP DEFAULT
CURRENT_TIMESTAMP,
    FOREIGN KEY (patient_id) REFERENCES
patients(patient_id)
);


-- Billing Table
```

```sql
CREATE TABLE IF NOT EXISTS billing (    bill_id
INT AUTO_INCREMENT PRIMARY KEY,
patient_id INT,    service VARCHAR(100),
    amount DECIMAL(10,2),
    bill_date TIMESTAMP DEFAULT
CURRENT_TIMESTAMP,
    FOREIGN KEY (patient_id) REFERENCES
patients(patient_id)
);

-- Inventory Table
CREATE TABLE IF NOT EXISTS inventory (
item_id INT AUTO_INCREMENT PRIMARY KEY,
item_name VARCHAR(100),    quantity INT,
    updated_at TIMESTAMP DEFAULT
CURRENT_TIMESTAMP
);

-- Staff Table
```
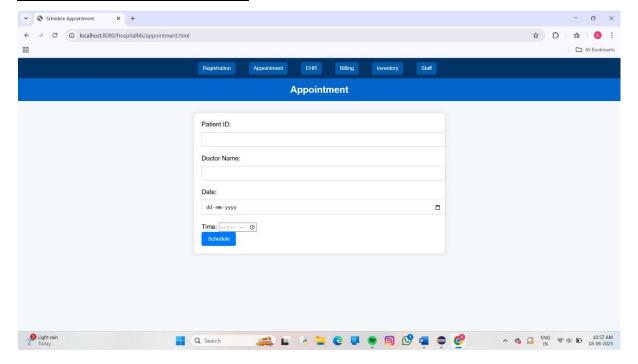
```sql
CREATE TABLE IF NOT EXISTS staff (    staff_id
INT AUTO_INCREMENT PRIMARY KEY,    name
VARCHAR(100),    role VARCHAR(50),
    department VARCHAR(100),
    hire_date TIMESTAMP DEFAULT
CURRENT_TIMESTAMP
);
```
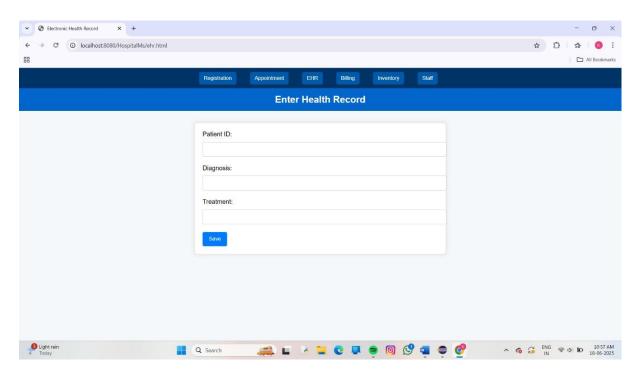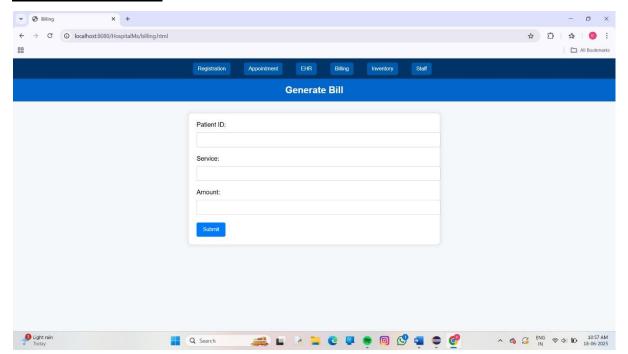
# OUTPUT

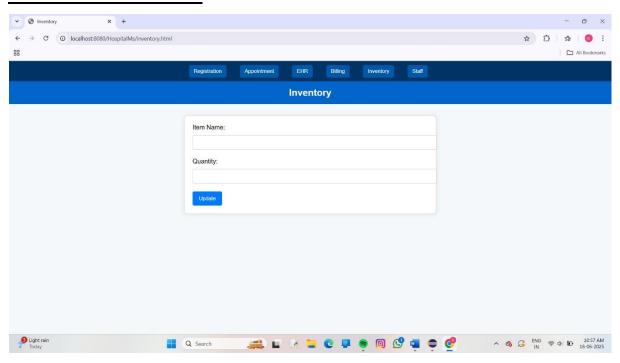# REGISTRATION PAGE



# APPOINTMENT PAGE
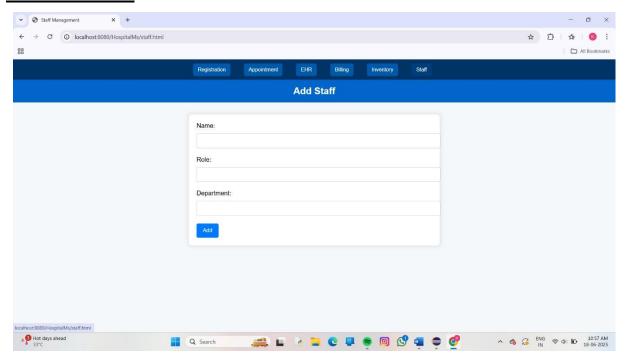
# EHR PAGE



# BILLING PAGE

# INVENTORY PAGE



# STAFF PAGE

# DATABASE

LET US CONSIDER SOMEONE IS BILLING IN THE BILLING

PAGE AND IT IS RECORDERED IN THE DATABASE